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FILE COVERS 1907 - 6 May 2003  VOL 138 ISS 19
FILE LAST UPDATED: 5 May 2003  (20030505/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.


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L21      388823 SEA FILE=HCAPLUS L10 OR L11 OR L12 OR L13 OR L14 OR L15 OR L16
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L22        3958 SEA FILE=HCAPLUS L1 (L)(INHIB? OR REDUC? OR ACTIV? OR ADIPO?
                OR OBES? OR BODY(W)FAT OR FAT(W)BODY)
L23         384 SEA FILE=HCAPLUS L21 AND L22
L44           7 SEA FILE=HCAPLUS L23 AND L5


=> d ibib abs hitrn l44 1-7

L44  ANSWER 1 OF 7  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         2002:978341  HCAPLUS
DOCUMENT NUMBER:          138:33341
TITLE:                    Animal body fat control by reducing lipoxygenase
                          activity
INVENTOR(S):              Pariza, Michael W.; Park, Yeonhwa
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S. Pat. Appl. Publ., 13 pp.
```

CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002197301	A1	20021226	US 2001-871125	20010531

PRIORITY APPLN. INFO.: US 2001-871125 20010531

AB A method for controlling body fat in a human or nonhuman animal includes the step of reducing lipoxygenase activity in an animal. Lipoxygenase activity can be reduced by reducing the enzyme activity or by lowering the enzyme level. Reduced lipoxygenase activity correlates with reduced cell-assocd. lipoprotein lipase (LPL) activity and with reduced cellular triacylglyceride level. Mice fed feed contg. lipoxygenase inhibitor nordihydroguaiaretic acid (NDGA) at a 0.1 % level had reduced fat and increased water and protein. A synergistic effect on body fat compn. was seen with a combination of NDGA and **conjugated linoleic acid** at 0.1 %.

IT **63551-74-6**, Lipoxygenase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(animal **body fat** control by **reducing** lipoxygenase **activity**)

IT **1839-11-8**, **Conjugated linoleic acid**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(animal body fat control by reducing lipoxygenase activity)

IT **53-86-1**, Indomethacin **89-73-6**, Salicylhydroxamic acid **303-45-7**, Gossypol **331-39-5**, 3,4-Dihydroxycinnamic acid **491-67-8**, Baicalein **1191-85-1**, ETYA **10597-60-1**, 3,4-Dihydroxyphenyl ethanol **58688-54-3**, 5,6-Dehydro arachidonic acid
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lipoxygenase inhibitor; animal body fat control by reducing lipoxygenase activity)

L44 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:56455 HCAPLUS
DOCUMENT NUMBER: 136:319029
TITLE: Lipoxygenase inhibitors inhibit heparin-releasable lipoprotein lipase activity in 3T3-L1 adipocytes and enhance body fat reduction in mice by **conjugated linoleic acid**
AUTHOR(S): Park, Yeonhwa; Pariza, Michael W.
CORPORATE SOURCE: Food Research Institute, Department of Food Microbiology and Toxicology, University of Wisconsin-Madison, Madison, WI, 53706, USA
SOURCE: Biochimica et Biophysica Acta (2001), 1534(1), 27-33
CODEN: BBACAQ; ISSN: 0006-3002
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The t10c12 isomer of **conjugated linoleic acid** (**CLA**) reduces lipid accumulation in adipocytes in part by inhibiting heparin-releasable lipoprotein lipase (LPL) activity. We now show that inhibitors of lipoxygenase (LOX) activity (2-[12-hydroxydodeca-5,10-diynyl]-3,5,6-trimethyl-p-benzoquinone; 5,8,11,14-eicosatetraynoic

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L44  ANSWER 1 OF 7  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:        2002:978341  HCAPLUS
DOCUMENT NUMBER:         138:33341
TITLE:                   Animal body fat control by reducing lipoxygenase
                         activity
INVENTOR(S):             Pariza, Michael W.; Park, Yeonhwa
PATENT ASSIGNEE(S):      USA
SOURCE:                  U.S. Pat. Appl. Publ., 13 pp.
```

acid; salicylhydroxamic acid; indomethacin; nordihydroguaiaretic acid (NDGA)) produce a similar inhibitory effect on LPL activity in cultured 3T3-L1 mouse adipocytes. Addnl. the LOX inhibitors had no effect on, or inhibited, lipolysis in this cell system (measured as glycerol release). Growing mice fed diet contg. 0.1% NDGA for 4 wk displayed 21% redn. in body fat, which was similar to 23% redn. in body fat produced by feeding diet contg. a suboptimal amt. of **CLA** (0.1%) for 4 wk. Feeding diet contg. both 0.1% NDGA and 0.1% **CLA** resulted in 51% redn. in body fat which was accompanied by significant increases in whole body water and protein. Aspirin, an inhibitor of cyclooxygenase 1 and 2, had no effect on LPL activity in 3T3-L1 adipocytes, did not affect body compn. when fed to growing mice, and failed to influence the effects of **CLA** on LPL activity in 3T3-L1 cells or body compn. in mice. These findings appear to provide new perspectives and insights into the relationships between **CLA**, eicosanoids, the control of lipid accumulation in adipocytes, and effects of **CLA** on the immune system.

IT **9029-60-1**, Lipoxygenase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(lipoxygenase **inhibitors inhibit** heparin-releasable lipoprotein lipase **activity** in 3T3-L1 **adipocytes** and enhance **body fat** redn. in mice by **conjugated linoleic acid**)

IT **53-86-1**, Indomethacin **89-73-6**, Salicylhydroxamic acid **1191-85-1**, 5,8,11,14-Eicosatetraynoic acid **121250-47-3**, **Conjugated linoleic acid**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lipoxygenase inhibitors inhibit heparin-releasable lipoprotein lipase activity in 3T3-L1 adipocytes and enhance body fat redn. in mice by **conjugated linoleic acid**)

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L44 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:688272 HCAPLUS
DOCUMENT NUMBER: 133:280563
TITLE: Human antibodies that bind human IL-12 and methods for producing
INVENTOR(S): Salfeld, Jochen G.; Roguska, Michael; Paskind, Michael; Banerjee, Subhashis; Tracey, Daniel E.; White, Michael; Kaymakcalan, Zehra; Labkovsky, Boris; Sakorafas, Paul; Friedrich, Stuart; Myles, Angela; Veldman, Geertruida M.; Venturini, Amy; Warne, Nicholas W.; Widom, Angela; Elvin, John G.; Duncan, Alexander R.; Derbyshire, Elaine J.; Carmen, Sara; Smith, Stephen; Holtet, Thor Las; Du, Fou Sarah L.
PATENT ASSIGNEE(S): Basf A.-G., Germany; Genetics Institute Inc.; et al.
SOURCE: PCT Int. Appl., 377 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000056772	A1	20000928	WO 2000-US7946	20000324

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,

CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

NZ 513945	A	20010928	NZ 2000-513945		20000324
BR 2000009323	A	20020108	BR 2000-9323		20000324
EP 1175446	A1	20020130	EP 2000-918396		20000324
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
JP 2002542770	T2	20021217	JP 2000-606632		20000324
NO 2001004605	A	20011126	NO 2001-4605		20010921
PRIORITY APPLN. INFO.:			US 1999-126603P	P	19990325
			WO 2000-US7946	W	20000324

AB Human antibodies, preferably recombinant human antibodies, that specifically bind to human interleukin-12 (hIL-12) are disclosed. Preferred antibodies have high affinity for hIL-12 and neutralize hIL-12 activity in vitro and in vivo . An antibody of the invention can be a full-length antibody or an antigen-binding portion thereof. The antibodies, or antibody portions, of the invention are useful for detecting hIL-12 and for inhibiting hIL-12 activity, e.g., in a human subject suffering from a disorder in which hIL-12 activity is detrimental. Nucleic acids, vectors and host cells for expressing the recombinant human antibodies of the invention, and methods of synthesizing the recombinant human antibodies, are also encompassed by the invention.

IT **9029-60-1**, Lipoxygenase
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**inhibitors**; recombinant human antibodies that bind human IL-12 for treatment of autoimmune diseases and inflammatory diseases)

IT **50-18-0**, Cyclophosphamide
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(recombinant human antibodies that bind human IL-12 for treatment of autoimmune diseases and inflammatory diseases)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L44 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:48609 HCAPLUS
DOCUMENT NUMBER: 130:119591
TITLE: Antioxidant enhancement of therapy for hyperproliferative conditions
INVENTOR(S): Chinery, Rebecca; Beauchamp, R. Daniel; Coffey, Robert J.; Medford, Russell M.; Wadsinski, Brian
PATENT ASSIGNEE(S): Atherogenics, Inc., USA
SOURCE: PCT Int. Appl., 112 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9901118	A2	19990114	WO 1998-US13750	19980701
WO 9901118	A3	19990422		

W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, ID, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9882827	A1	19990125	AU 1998-82827	19980701
EP 1019034	A2	20000719	EP 1998-933078	19980701
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002511878	T2	20020416	JP 1999-507360	19980701
US 2001049349	A1	20011206	US 2001-779086	20010207
PRIORITY APPLN. INFO.:			US 1997-886653 A	19970701
			US 1997-967492 A	19971111
			US 1998-108609 B1	19980701
			WO 1998-US13750 W	19980701

OTHER SOURCE(S): MARPAT 130:119591

AB A method to enhance the cytotoxic activity of an antineoplastic drug comprises administering an effective amt. of the antineoplastic drug to a host exhibiting abnormal cell proliferation in combination with an effective cytotoxicity-increasing amt. of an antioxidant. The invention also includes a method to decrease the toxicity to an antineoplastic agent or increase the therapeutic index of an antineoplastic agent administered for the treatment of a solid growth of abnormally proliferating cells, comprising administering an antioxidant prior to, with, or following the antineoplastic treatment.

IT **50-18-0**, Cyclophosphamide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antioxidant enhancement of therapy for hyperproliferative conditions)

IT **9029-60-1**, Lipoxygenase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**inhibitors**; antioxidant enhancement of therapy for hyperproliferative conditions)

L44 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER:	1994:569933 HCAPLUS
DOCUMENT NUMBER:	121:169933
TITLE:	Cyclooxygenase and lipoxygenase inhibitors as modulators of cancer therapies
AUTHOR(S):	Teicher, Beverly A.; Korbut, Timothy T.; Menon, Krishna; Holden, Sylvia A.; Ara, Gulshan
CORPORATE SOURCE:	Dana-Farber Cancer Inst., Boston, MA, 02115, USA
SOURCE:	Cancer Chemotherapy and Pharmacology (1994), 33(6), 515-22 CODEN: CCPHDZ; ISSN: 0344-5704
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB Like many clin. non-small-cell lung cancers, the Lewis lung carcinoma produces prostaglandins. The Lewis lung carcinoma was used as a model of both primary and metastatic disease to assess the ability of cyclooxygenase inhibitors (mefenamic acid, diflunisal, sulindac, and indomethacin), the collagenase inhibitor minocycline, and the lipoxygenase inhibitor phenidone to act as modulators of cytotoxic cancer therapies. Although none of the single modulators given i.p. daily on days 4-18 altered tumor growth or the no. of metastases found on day 20, modulator combinations consisting of minocycline/a cyclooxygenase inhibitor and,

esp., of phenidone/a cyclooxygenase inhibitor resulted in modest tumor growth delay and a decreased no. of lung metastases on day 20. The most effective modulators of cisplatin (CDDP) were phenidone/sulindac and phenidone/indomethacin, which led to 2.4- to 2.5-fold increases in the tumor growth delay produced by CDDP. The most effective modulations of cyclophosphamide resulted from administration of minocycline, minocycline/sulindac, or phenidone/sulindac and led to 2.0- to 2.1-fold increases in tumor growth delay by cyclophosphamide. The most effective modulators of melphalan produced 4.5- to 4.7-fold increases in tumor growth delay by the drug and were minocycline/sulindac, minocycline/mefenamic acid, and phenidone/sulindac. The most effective modulation of carmustine (BCNU) was obtained with minocycline/sulindac and minocycline/diflunisal leading to 2.8- to 3.1-fold increases in tumor growth delay by BCNU. Finally, the most effective modulation of radiation was obtained with minocycline/sulindac and phenidone/sulindac and resulted in 2.8- to 3.3-fold increases in tumor growth delay by radiation. The modulator combination that along with the cytotoxic therapies was most effective against metastatic disease was phenidone/mefenamic acid. There was no clear relationship between effective modulation of the cancer therapies and the degree of redn. in serum levels of prostaglandin E2 and leukotriene B4 by the agents in Lewis lung tumor bearing mice.

IT **53-86-1**, Indomethacin
RL: BIOL (Biological study)
(antitumor drugs modulation by lipoxygenase inhibitors and, as cyclooxygenase inhibitor)

IT **50-18-0**, Cyclophosphamide
RL: PRP (Properties)
(antitumor effect of, cyclooxygenase and lipoxygenase inhibitors modulation of)

IT **63551-74-6**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**inhibitors**, antitumor drugs modulation by cyclooxygenase **inhibitors** and)

L44 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1989:433265 HCAPLUS
DOCUMENT NUMBER: 111:33265
TITLE: Effects of anti-inflammatory drugs on interleukin 1-induced cartilage proteoglycan resorption in vitro: inhibition by aurothiophosphines but no influence from perturbed eicosanoid metabolism
AUTHOR(S): Rainsford, K. D.
CORPORATE SOURCE: Anti-Inflammatory Res. Unit, Strangeways Res. Lab., Cambridge, CB1 4RN, UK
SOURCE: Journal of Pharmacy and Pharmacology (1989), 41(2), 112-17
CODEN: JPPMAB; ISSN: 0022-3573
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A range of anti-inflammatory drugs having varying effects on eicosanoid metab. and other actions was studied for their potential to inhibit .alpha.-interleukin I (IL-1)-induced cartilage proteoglycan resorption in vitro. No effects on resorption were obsd. with inhibitors of cyclooxygenase or lipoxygense or mixed inhibitors of both these enzymes, and no influence on IL-1 effects was obsd. with added eicosanoids. Among the clin. used disease-modifying antiarthritic agents, only auranofin and the immunoregulatory agent tilomisole were effective in inhibiting resorption. Some auranofin analogs having Cl or NO2 leaving groups that inhibit DNA polymerase-.alpha. were potent inhibitors of IL-1 induced

resorption.

IT **80619-02-9**, 5-Lipoxygenase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**inhibitors**, resorption of proteoglycans of cartilage response to)

IT **50-18-0**, Cyclophosphamide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(resorption of proteoglycans of cartilage response to)

L44 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1986:102126 HCAPLUS
DOCUMENT NUMBER: 104:102126
TITLE: Modulation of mouse ear edema by cyclooxygenase and lipoxygenase inhibitors and other pharmacologic agents
AUTHOR(S): Carlson, Richard P.; O'Neill-Davis, Lynn; Chang, Joseph; Lewis, Alan J.
CORPORATE SOURCE: Dep. Exp. Therapeut., Wyeth Lab., Inc., Philadelphia, PA, 19101, USA
SOURCE: Agents and Actions (1985), 17(2), 197-204
CODEN: AGACBH; ISSN: 0065-4299
DOCUMENT TYPE: Journal
LANGUAGE: English

AB **Inhibitors** of arachidonic acid (AA) [506-32-1] metab. and other pharmacol. agents were evaluated against ear edema produced in mice by tetradecanoylphorbol acetate (TPA) or AA. Drugs were administered orally and topically either 30 min prior to AA or 30 min after TPA, except for steroids which were administered 2.5-3 h prior to AA. Several cyclo-oxygenase [39391-18-9] (CO) **inhibitors** including indomethacin [**53-86-1**], aspirin [50-78-2], piroxicam [36322-90-4] and timegadine [71079-19-1] were without effect when administered orally against either irritant; the same drugs **inhibited** TPA edema when they were administered topically. Mixed CO/lipoxygenase (LO) [**9029-60-1**] **inhibitors**, phenidone [92-43-3] and BW755C [66000-40-6], were **active** orally against AA edema (ED50s of 84 and 65 mg/kg, resp.) and against TPA edema (ED50s of 235 and 88 mg-kg, resp.). Phenidone was more **active** topically against AA edema (ED50, 0.1 mg/ear) than BW755C (ED50, 2.8 mg/ear); however, BW755C was more **active** topically against TPA edema (ED50, 0.2 mg/ear) than phenidone (ED50, 0.6 mg/ear). Methylprednisolone [83-43-2] was very effective in the AA (oral ED50, 17 mg/kg; topical ED50, .degree.1 mg/ear) and TPA models (oral ED50, 4.3 mg/kg; topical ED50, 0.03 mg/ear). MK-447 [58456-91-0] was topically and orally effective only in the TPA model. Not surprisingly, drugs were more effective topically than orally in both mouse ear edema assays. The models were somewhat selective for CO and CO/LO **inhibitors**; however, dapsone [80-08-0] was orally effective in the ear models, and a no. of mediator antagonists and central nervous system drugs, esp. antipsychotics, were topically **active** primarily against TPA edema. These models may be useful for the detection of in vivo **activity** of CO/LO or 5-LO **inhibitors**.

IT **50-18-0 53-86-1**
RL: PRP (Properties)
(anti-inflammatory effect of, in ear edema)

IT **9029-60-1**
RL: BIOL (Biological study)
(**inhibitors** of, anti-inflammatory effect of, in ear edema)

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                OR OBES? OR BODY(W)FAT OR FAT(W)BODY)
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L39 (        18)SEA FILE=HCAPLUS CINNAMYL(L)3(W)4(W)DIHYDROXY(L)CYANOCINNAMATE?

L40 (      3381)SEA FILE=HCAPLUS L30 OR GOSSYPOL
L41 (        25)SEA FILE=HCAPLUS L31 OR 5(W)6(W)DEHYDRO(W)ARACHIDONIC(W)ACID
L42 (        23)SEA FILE=HCAPLUS L32 OR BAEOMYCESIC(W)ACID?
L43       36495 SEA FILE=HCAPLUS (L33 OR L34 OR L35 OR L36 OR L37 OR L38 OR
                L39 OR L40 OR L41 OR L42)
L44           7 SEA FILE=HCAPLUS L23 AND L5
L45         606 SEA FILE=HCAPLUS L22 AND L43
L46           5 SEA FILE=HCAPLUS L45 AND L5
L47           1 SEA FILE=HCAPLUS L46 NOT L44


=> d ibib abs hitrn l47

L47  ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         1997:198591  HCAPLUS
DOCUMENT NUMBER:          126:258607
TITLE:                    Proliferation responses of normal human mammary and
                          MCF-7 breast cancer cells to linoleic acid,
                          conjugated linoleic acid
                          and eicosanoid synthesis inhibitors in culture
```

AUTHOR(S): Cunningham, Diane C.; Harrison, Lisa Y.; Shultz, Terry D.
CORPORATE SOURCE: Dep. Food Sci. Human Nutrition, Washington State Univ., Pullman, WA, 99164-6376, USA
SOURCE: Anticancer Research (1997), 17(1A), 197-203
CODEN: ANTRD4; ISSN: 0250-7005
PUBLISHER: Anticancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Potential mechanisms for the stimulation or inhibition of cell growth by linoleic acid (LA) and **conjugated linoleic acid** (**CLA**) were investigated by using eicosanoid synthesis inhibitors. Normal human mammary epithelial cells (HMEC) and MCF-7 breast cancer cells were incubated in serum-free medium supplemented with LA or **CLA** and cyclooxygenase (**indomethacin**; INDO) or lipoxygenase (nondihydroguiaaritic acid; NDGA) inhibitors. Linoleic acid stimulated the growth and [3H]thymidine incorporation of normal HMEC and MCF-7 cancer cells, while **CLA** was inhibitory. Supplementation with LA increased intracellular lipid peroxide concns. in normal HMEC and MCF-7 cancer cells, whereas **CLA** did not affect lipid peroxide formation. Normal HMEC and CF-7 cells supplemented with LA and INDO or NDGA resulted in growth inhibition. The treatment of normal HMEC with **CLA** and INDO or NDGA, and MCF-7 cells with **CLA** and INDO stimulated cell growth. However, the addn. of **CLA** and NDGA to MCF-7 cells resulted in synergistic growth suppression suggesting that **CLA** effects were mediated through lipoxygenase inhibition. Although NDGA was more inhibitory of cell growth in the presence of LA or **CLA** than INDO, growth was assocd. with both prostaglandin and leukotriene prodn. Addnl. studies are warranted to elucidate the mechanism(s) whereby LA or **CLA** affect breast cell growth.
IT **9029-60-1**, Lipoxygenase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(proliferation responses of normal human mammary and breast cancer cells to linoleic acid, **conjugated linoleic acid** and eicosanoid synthesis **inhibitors**)

```
=> d stat que
L1          302 SEA FILE=REGISTRY (LIPOXYGEN/BI OR LIPOXYGENASE/BI)
L2            2 SEA FILE=REGISTRY "CONJUGATED LINOLEIC ACID"/CN
L3          180 SEA FILE=REGISTRY CLA/BI
L5       281162 SEA FILE=HCAPLUS L2 OR L3 OR CONJUGATED(W)LINOLEIC(W)ACID? OR
                CLA
L10 (        52)SEA FILE=REGISTRY INDOMETHACIN/BI
L11 (         1)SEA FILE=REGISTRY ETYA/CN
L12 (        36)SEA FILE=REGISTRY SHA/BI
L13 (        22)SEA FILE=REGISTRY BAICALEIN/BI
L14 (         3)SEA FILE=REGISTRY 3,4-DIHYDROXYCINNAMIC ACID?/CN
L15 (         0)SEA FILE=REGISTRY CINNAMYL(L)CYANOCINNAMATE?
L16 (        68)SEA FILE=REGISTRY GOSSYPOL/BI
L17 (         1)SEA FILE=REGISTRY "5,6-DEHYDROARACHIDONIC ACID"/CN
L18 (         0)SEA FILE=REGISTRY BACOMYCESIC ACID?/CN
L19 (        82)SEA FILE=REGISTRY 3,4-DIHYDROXYPHENYL(L)ETHANOL?
L20 (       180)SEA FILE=REGISTRY CLA/BI
L21      388823 SEA FILE=HCAPLUS L10 OR L11 OR L12 OR L13 OR L14 OR L15 OR L16
                OR L17 OR L18 OR L19 OR L20
L22        3958 SEA FILE=HCAPLUS L1 (L)(INHIB? OR REDUC? OR ACTIV? OR ADIPO?
                OR OBES? OR BODY(W)FAT OR FAT(W)BODY)
L23         384 SEA FILE=HCAPLUS L21 AND L22
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Searched by M. Smith

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L44           7 SEA FILE=HCAPLUS L23 AND L5
L48          82 SEA FILE=REGISTRY 3(W)4(W)DIHYDROXYPHENYL(L)ETHANOL
L50           3 SEA FILE=REGISTRY "DOCOSAHEXAENOIC ACID"/CN
L51           1 SEA FILE=REGISTRY "EICOSATRIYNOIC ACID"/CN
L52           2 SEA FILE=REGISTRY 5-HETE/CN
L53       52101 SEA FILE=REGISTRY LACTONE/BI
L54           1 SEA FILE=REGISTRY "5(S)-HPETE"/CN
L55           1 SEA FILE=REGISTRY "12(S)-HPETE"/CN
L56           1 SEA FILE=REGISTRY "15(S)-HPETE"/CN
L58          15 SEA FILE=REGISTRY 9,12-OCTADECADIYNOIC ACID?/CN
L59         553 SEA FILE=REGISTRY PENTYL(L)(2(W)QUINOLINYLMETHOXY?)
L60          51 SEA FILE=REGISTRY TRIFLUOROMETHYL(L)PHENYL(L)2(W)PYRAZ?
L61           1 SEA FILE=REGISTRY EPOXY(L)PHENYLIMINO(L)PROSTAGLAND?
L62           1 SEA FILE=REGISTRY NDGA/CN
L63           1 SEA FILE=REGISTRY "NORDIHYDROGUAIARETIC ACID"/CN
L64          12 SEA FILE=REGISTRY BHA/BI
L65          14 SEA FILE=REGISTRY BHT/BI
L66       88266 SEA FILE=HCAPLUS L48 OR  3(W)4(W)DIHYDROXYPHENYL(L)ETHANOL
L67       10989 SEA FILE=HCAPLUS L50 OR DOCOSAHEXAENOIC(W)ACID?
L68          82 SEA FILE=HCAPLUS L51 OR EICOSATRIYNOIC(W)ACID?
L69        1420 SEA FILE=HCAPLUS L52 OR 5(W)HETE
L70      215361 SEA FILE=HCAPLUS L53 OR LACTONE
L71          10 SEA FILE=HCAPLUS L69(L)L70
L72         140 SEA FILE=HCAPLUS L54 OR 5(W)S(W)HPETE
L73         130 SEA FILE=HCAPLUS L55 OR 12(W)S(W)HPETE
L74         244 SEA FILE=HCAPLUS L56 OR 15(W)S(W)HPETE
L76          48 SEA FILE=HCAPLUS L58 OR 9(W)12(W)OCTADECADIYNOIC(W)ACID
L77         165 SEA FILE=HCAPLUS L59 OR PENTYL(L)(2(W)QUINOLINYLMETHOXY?)
L78         443 SEA FILE=HCAPLUS L60 OR TRIFLUOROMETHYL(L)PHENYL(L)2(W)PYRAZ?
L79          66 SEA FILE=HCAPLUS L61 OR  EPOXY(L)PHENYLIMINO(L)PROSTAGLAND?
L80        3048 SEA FILE=HCAPLUS L62 OR L63 OR NDGA OR NORDIHYDROGUAIARETIC(W)A
                CID
L81        5487 SEA FILE=HCAPLUS L64 OR BHA
L82       15413 SEA FILE=HCAPLUS L65 OR BHT
L83      122090 SEA FILE=HCAPLUS L66 OR L67 OR L68 OR L69 OR L71 OR L72 OR L73
                OR L74 OR L76 OR L77 OR L78 OR L79 OR L80 OR L81 OR L82
L84         850 SEA FILE=HCAPLUS L83 AND L22
L85           6 SEA FILE=HCAPLUS L84 AND L5
L86           2 SEA FILE=HCAPLUS L85 NOT L44


=> d ibib abs hitrn l86 1-2

L86  ANSWER 1 OF 2  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:        1997:198591  HCAPLUS
DOCUMENT NUMBER:         126:258607
TITLE:                   Proliferation responses of normal human mammary and
                         MCF-7 breast cancer cells to linoleic acid,
                         conjugated linoleic acid
                         and eicosanoid synthesis inhibitors in culture
AUTHOR(S):               Cunningham, Diane C.; Harrison, Lisa Y.; Shultz, Terry
                         D.
CORPORATE SOURCE:        Dep. Food Sci. Human Nutrition, Washington State
                         Univ., Pullman, WA, 99164-6376, USA
SOURCE:                  Anticancer Research (1997), 17(1A), 197-203
                         CODEN: ANTRD4; ISSN: 0250-7005
PUBLISHER:               Anticancer Research
DOCUMENT TYPE:           Journal
LANGUAGE:                English
```

AB Potential mechanisms for the stimulation or inhibition of cell growth by linoleic acid (LA) and **conjugated linoleic acid** (**CLA**) were investigated by using eicosanoid synthesis inhibitors. Normal human mammary epithelial cells (HMEC) and MCF-7 breast cancer cells were incubated in serum-free medium supplemented with LA or **CLA** and cyclooxygenase (indomethacin; INDO) or lipoxygenase (nondihydroguiaaritic acid; **NDGA**) inhibitors. Linoleic acid stimulated the growth and [3H]thymidine incorporation of normal HMEC and MCF-7 cancer cells, while **CLA** was inhibitory. Supplementation with LA increased intracellular lipid peroxide concns. in normal HMEC and MCF-7 cancer cells, whereas **CLA** did not affect lipid peroxide formation. Normal HMEC and CF-7 cells supplemented with LA and INDO or **NDGA** resulted in growth inhibition. The treatment of normal HMEC with **CLA** and INDO or **NDGA**, and MCF-7 cells with **CLA** and INDO stimulated cell growth. However, the addn. of **CLA** and **NDGA** to MCF-7 cells resulted in synergistic growth suppression suggesting that **CLA** effects were mediated through lipoxygenase inhibition. Although **NDGA** was more inhibitory of cell growth in the presence of LA or **CLA** than INDO, growth was assocd. with both prostaglandin and leukotriene prodn. Addnl. studies are warranted to elucidate the mechanism(s) whereby LA or **CLA** affect breast cell growth.

IT **9029-60-1**, Lipoxygenase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(proliferation responses of normal human mammary and breast cancer cells to linoleic acid, **conjugated linoleic acid** and eicosanoid synthesis **inhibitors**)

L86 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1967:470708 HCAPLUS
DOCUMENT NUMBER: 67:70708
TITLE: Inactivation of lipoxygenase by hydrogen peroxide, cysteine, and some other reagents
AUTHOR(S): Mitsuda, Hisateru; Yasumoto, Kyoden; Yamamoto, Aijiro
CORPORATE SOURCE: Kyoto Univ., Kyoto, Japan
SOURCE: Agricultural and Biological Chemistry (1967), 31(7), 853-60
CODEN: ABCHA6; ISSN: 0002-1369
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Polarography of a reaction mixt. contg. the antioxidant **nordihydroguaiaretic acid**, linoleic acid, and soybean lipoxygenase (EC 1.13.1.13) showed that H2O2 was not formed during the catalasecoupled oxidn. of the antioxidant. The addn. of 10-4M H2O2 abolished enzymic activity, and this inhibition was not reversed by cysteine or ascorbic acid. In fact, cysteine inhibited activity, 7 .times. 10-6M cysteine decreasing lipoxygenase activity by 50%. Inhibition by cysteine was lowered by the addn. of catalase or by anaerobic conditions. Since moderate oxidizing reagents such as ferricyanide did not reverse the inhibition by cysteine, it is likely that lipoxygenase was inactivated by the autoxidn. of SH groups. Inactivation by cysteine and H2O2 was additive and was impeded by competitive inhibitors such as linolelaidic acid and **conjugated linoleic acid**, showing a possible reaction with an amino acid residue involved in enzymic catalysis.

IT **9029-60-1**, Oxygenases, lip-
(**inhibition** by cysteine, and hydrogen peroxide)